

macdonald **FARM** *journal*



FALL
FERTILIZING
PAYS

NEW
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AUGUST, 1966



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THE MACDONALD LASSIE

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The Macdonald Farm Journal is published by Ronald J. Cooke Limited, also publisher of Resort Administration, 58 Madsen Ave., Beaconsfield, P.Q. • Authorized as second class mail by the Post Office Department, Ottawa, and for payment of postage in cash. Price 25 cents per copy. Subscription rates are 2.00 per year; 3.00 for two years in Canada. U.S. and Foreign: \$4.00 per year. Address subscription renewals to Macdonald Farm Journal, 58 Madsen Ave., Beaconsfield, P.Q. 697-2916.

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journal

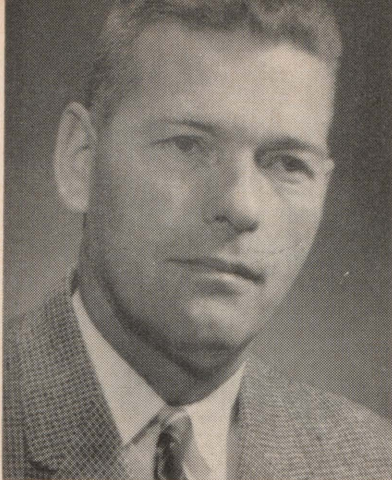
VOLUME 27, No 8

AUGUST 1966

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OUR COVER: Rye is a cereal crop under-rated as a livestock feed. In feeding value, it ranks close to barley and corn. In yield, only few can beat it. It is a valuable pasture crop for early spring and late fall. It performs well on light land. Its one limitation of unpalatability can be overcome by mixing with other grains. Along with corn, barley, wheat and oats, rye could play a part in filling the 80,000,000-bushels annual feed-grain deficit in Eastern Canada. (National Film Board photo by F. Royal.)



Walker Riley

INSIDE

THE EDITOR'S COLUMN

Feed grain assistance — A mixed blessing

On June 26, 1966, Bill C218, "An Act to provide assistance to livestock feeders of Eastern Canada and British Columbia", received its first reading in the House of Commons of Canada. The House is now in its summer recess. Thankfully, it gives all concerned time to consider fully its implications before second and final reading.

The purpose of Bill C218 is clearly stated. It is to establish a Canadian Livestock Feed Board with the object of ensuring "the availability of feed grain to meet the needs of livestock feeders; the availability of adequate storage space in Eastern Canada to meet the needs of livestock feeders; reasonable stability in the price of feed grain in Eastern Canada and British Columbia; and fair equalization of feed grain prices in Eastern Canada and in British Columbia." The Board will be empowered to make "payments related to the cost of feed grain storage in Eastern Canada and payments related to the cost of feed grain transportation to or for the benefit of livestock feeders".

Obviously, the intent is to continue and expand the policies of subsidized Western grain for Eastern Canada.

If passed, we believe this bill can only further impede the development of a stable and balanced agriculture in Eastern Canada.

We would like to make only one point at this time in this complicated and controversial matter.

Since 1941, the year in which feed grain assistance policy was introduced, four million acres of land in Eastern Canada have gone out of use — twice the area needed to produce all of the 80 million tons grain brought in each year from the West.

Now we are not suggesting that the feed grain assistance policy has alone been responsible for this situation, but certainly it has been a factor in the relentless pressure on the eastern farm, and has hastened the development of factory-type feeding operations in the east.

The Feed Grain Assistance policy has put a ceiling not only on imported Western grain, but on home grown grain as well — a ceiling which has tipped the scales of competition, has forced eastern growers out of grain production.

With all respect to the livestock feeding industry, we believe a sound regional agriculture must be based on the land. Water, soil, sunshine and air are the basic materials of all livestock and human food. To start further up the ladder is to create an unstable, artificial production system which flourishes or declines at the whim of the policy makers. We fail to see the lasting merits of a food production system where the only local contribution is labour.

We are concerned with the slow development of a vigorous self-sufficient agricultural economy in Eastern Canada. The perpetuation of the policies of low-cost grain for livestock feeders can only retard healthy economic growth.

WE SHOULD PLAN

There are many rural communities in Canada that could profitably spend some time looking at themselves. Why is your community what it is? Did you ever really stop to think? Has it changed? I bet it has. Then why?

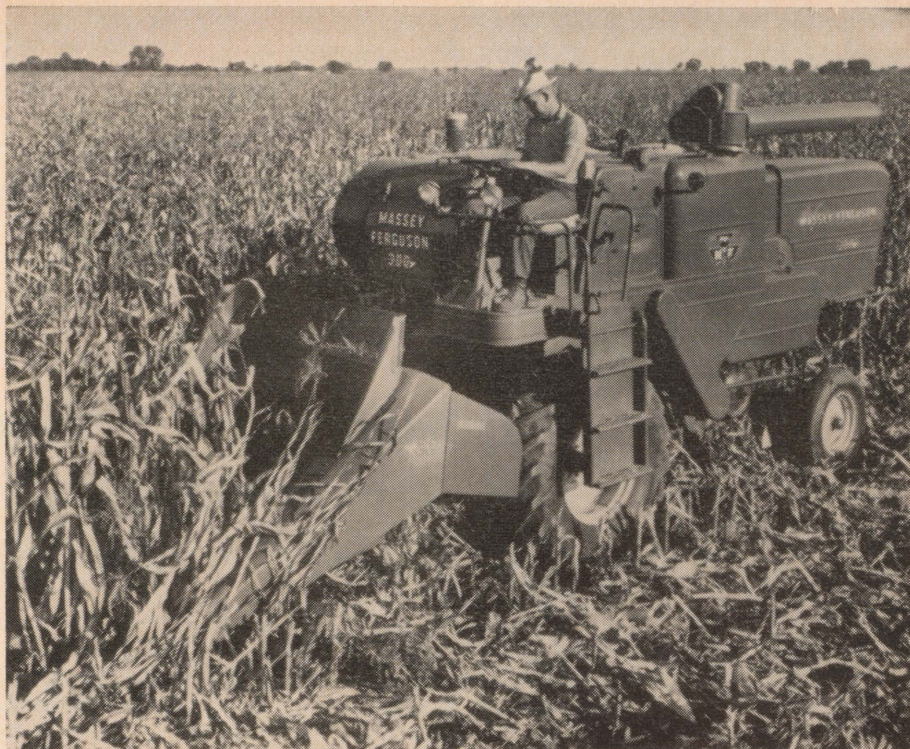
Some communities do spend time in self-examination and it pays them dividends. They take the time and effort to take stock of themselves and their community. Now this wasn't an easy task — we all know we can tell the other community what its problems are, but it's another matter to critically look at our own.

I guess all I'm really saying is that every community needs a plan of some kind. And every good plan needs a base and unless we really study the existing situation we cannot objectively plan a program for the future.

(continued on page 8)

Guest Editorial

By Galen Driver



Farm Machinery — Before You Buy — Think Twice

Heavy investment in machinery may set a farm on the road to success, or it may spell financial ruin. Using a combine for an example, here is a simple formula for finding the break-even point for any item of equipment.

By James G. Brown*

Farm machinery is a mixed blessing to modern agriculture. When carefully chosen to suit individual needs, it is a cost-saver beyond compare; but used as a status symbol without regard for sound economics, it will devour farm capital with alarming speed. Too many farmers today have too much machinery for too little work.

The business-like reason for buying any piece of machinery is to cut costs per unit of output — to substitute capital for labour. Valuable time is saved and through the mechanization of many monotonous chores, farming has become more enjoyable. But all too often the substitution is made at unreasonable expense.

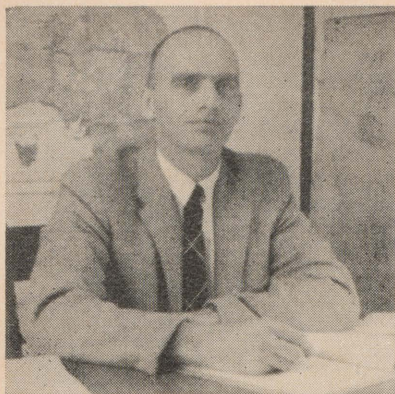
Consider now an example, using the combine, of the type of cost analysis which is suitable for evaluating any machinery purchase. Combining is a speedy, efficient means of harvesting grain. The combine is the ultimate in a chain of improvements that began with

the ancient sickle. But it is also a good example of overspending in machinery purchase.

Most pieces of farm machinery are limited to seasonal use. Any piece, then, has only a few days per year in which to earn its keep. There is a point, measured in hours, acres, or yield, at which it becomes profitable to own any piece of equipment. By common sense we say this point occurs where the machine begins to earn more than it costs. For a simple illustration, a spike-tooth harrow may be bought for \$120. If it is to be used for 10 years, without repair, on 75 acres, then the cost of that harrow is $(120) = 16\text{¢} / \frac{75 \times 100}{\text{acre}}$

No one questions the fact that this or some other kind of land preparation adds more than 16¢ to the final yield of that land. It is therefore profitable to own the harrow.

Whether or not it pays to own a
(continued on page 21)



Dr. MacKenzie

Dr. A. F. MacKenzie says —

FALL FERTILIZING PAYS

In a recent interview, A. F. MacKenzie, Professor of Soil Science, endorsed the growing practice of fertilizing in the fall for next year's crop, and outlined his recommendations for some of the major crops in Eastern Canada.

Q. Dr. MacKenzie, the fertilizer companies have been encouraging fall sales. Is this for their own convenience, or is it basically a sound farm practice?

A. It depends on the crop of course; for many crops it is a sound practice. The other feature is that the fertilizer companies can provide better service in the fall when they are less pushed than they can in the spring, and often a cheaper service too. This then would reflect back to the consumer in worthwhile savings. There are discounts for early buying; there are discounts for bulk spreading; there is no storage problem; there is the ease of application in the fall when soils are usually drier. All these are advantages for fall fertilization and for bulk spreading as well.

Q. When we speak of fall fertilizing are we thinking then in terms of bulk spreading?

A. Almost entirely, except perhaps for some seeded crops such as our fall cereals or fall wheat. Basically fall fertilization is bulk spreading on stubble, on pasture or on hay lands.

Q. Could we now go into some specific crops, for example, how would you treat pastures?

A. Yes. Fall fertilization and bulk spreading for pastures is a very good practice. The addition of phosphorus and potassium is going to enhance the legume growth and make them winter hardy. In addition, recent research results indicate that some nitrogen is also beneficial. So something in the ratio of 1-4-4 say, a fertilizer with the analysis of 5-20-20 would be very good for fall applications.

Q. Does this recommendation apply even for pastures strong in legumes?

A. Apparently yes. This is one of the unusual things the research turned up. Legumes wintered over better with a little bit of nitrogen in the fall. Not too much, mind you.

Q. Is a little nitrogen on legumes in spring also a good idea then?

A. No, probably not in the spring. For spring application on legumes, you will fertilize with your potash and phosphorus. If it's grass, then you will be able to fertilize only with nitrogen and get this spring growth.

Q. What about fall fertilizing the new seeding, would the same general rules that you have just outlined apply?

A. Yes. Phosphorus and potash in the fall, basically because it's much easier for you to put it on in the fall than in the spring and in addition you get winter hardiness. A little bit of nitrogen perhaps, depending on the amount of grass.

Q. Does this same ratio of one unit phosphorus to one unit potash still apply?

A. Probably. I would suspect in the newer seedings you need perhaps a little more phosphorus than you would in your later seedings. Generally as time goes by potash requirements increase so in your three and four year old pasture you might want to put in more potash.

Q. Could you suggest rates?

A. It depends of course on how things are going, but we have added in our research plots up to 100 lbs of P_2O_5 and 100 lbs K_2O . This may be high for phosphorus but it seems about right for potash.

Q. Now let's go on to another important crop. What about corn sod that is to be ploughed this fall? Can we spread the fertilizer this fall, or should

we hold back until the crop is seeded next spring?

A. I think the more fertilization on land that is to be ploughed the better. Aside from the other advantages, the fact that the land is going to be ploughed means that the fertilizer generally ends up in a series of bands six to eight inches below the surface, depending on the depth of ploughing. The fertilizer in these bands tends to remain more available than if it was mixed uniformly throughout the soil. So fall fertilization for spring seeding should be on land that is to be ploughed down.

Q. Is there any loss of efficiency in your fertilizer as compared with band placement?

A. I think so. It used to be considered a reduction in efficiency of 50% for phosphorus, but newer information indicates that this figure may be high. The reduction in efficiency isn't that much, particularly if it's ploughed down. For nitrogen, we may lose it through leaching, particularly on our sandier soils, and particularly if nitrate nitrogen is used. Therefore you should use ammonia nitrogen for fall application as much as possible. On our heavier clay soils, I don't think we're going to lose very much nitrogen. We are doing research in this area and results so far indicate we are not going to lose too much.

Q. In the view of this loss of efficiency, how can you justify fall fertilizing?

A. On the basis of economics. Do you have time to put in on in spring? Furthermore, are you going to be able to put it on without harming your soil structure? If you bulk spread in the fall there is less chance of compacting the soil, and digging it up into

cuts, and otherwise harming your soil. Also there is the fact that fertilizer is quite a bit cheaper in the fall and finally the fact that perhaps we aren't losing as much efficiency as we once thought we were. Now these are all decisions that must be made by the farm manager, whether he has the money available for bulk spreading in the fall, whether he wants to save on his fertilizer bill, whether he has the type of crop that can use fall fertilization.

Q. Can some of this "lost" fertilizer be recovered by a later crop?

A. Much of it can. Certainly on our heavier soils in which the fertilizers are ploughed down, I think our losses are going to be minimal and these are the soils which are also the hardest to spread fertilizer on in the spring. So for our heavy level soils around Montreal, fall fertilization seems to be ideally suited. Again this has to be a decision made by the farmer himself.

Q. Would you plough down all the corn fertilizer or would you hold some back for a starter, or as I have heard you call it, a pop-up fertilizer?

A. Definitely we need pop-up or starter fertilizer.

Q. Is pop-up fertilizer and a starter fertilizer the same thing?

A. Well, that depends who you talk to. To me, a pop-up fertilizer is one right with the corn seed; a starter fertilizer is in a band 2" to the side and 2" below the seed. The pop-up has been shown to be particularly useful for corn. Phosphorus is effective immediately, whereas with the starter fertilizer the effects are delayed by several weeks.

Q. Is there no risk of burning with pop-up fertilizer?

A. No risk if the rates used are quite low. Around 40 — 50 lbs per acre should be all right.

Q. What would be your suggestion for the amount broadcast on sod to be ploughed down for corn?

A. On sod, if we want to play it safe and hold back our nitrogen, 100 lbs P_2O_5 and 100 lbs K_2O depending of course on conditions and soil test. If we are willing to take the chance of losing some nitrogen, then 100 lbs of each, nitrogen, phosphorus and potash will be maximum. You can come back from that to lower amounts as you see fit.

Q. If you chose not to put your nitrogen on in the fall, when and how could it go on?

A. It would have to be probably broadcast in the spring, and disced in.

Q. What is your recommendation for corn following a grain corn crop, with the stalks left on the field to be ploughed down?

A. Probably I would recommend a nitrogen application before the fall working of the land, and this fairly soon after the harvesting of the corn in order to get the maximum effect of this nitrogen on the corn stubble before winter. This will increase the breakdown of the residue in the soil.

Q. How much nitrogen?

A. Fifty lbs nitrogen per acre would be perhaps a minimum.

Q. Now let's go on to winter wheat.

A. Again I think this depends on the soil and the management conditions. The general recommendations can be

followed if there is some doubt, and these call for about 20 — 30 lbs nitrogen, 50 lbs phosphate and 50 lbs potash. This we have found from our information is a fairly good average application.

Q. Can this be ploughed down prior to planting?

A. I think it should be applied when the crop is seeded, and the fertilizer should be added with the seed. This is one case, with our cereals, wheat, oats and barley, when we should be fertilizing with the seed and not broadcasting it.

Q. What about the potato crop, Dr. MacKenzie?

A. I'm not sure; the problem is in our sandy, acid soils which are required for potatoes. I would hesitate to advise fall fertilization; there is likely to be a lot of leaching, but we haven't too much information on this.

Q. Does this trend to fall fertilizing and bulk spreading indicate a change in thinking from fertilizing the crop to fertilizing the soil?

A. I think we are fertilizing the crop through the soil and I don't think there is really the big difference here that a lot of people think there is. If we fertilize the crop for its immediate needs, our fertilizers aren't 100% efficient and there is going to be some left over for the soil. Now this fertilizer that's left over we hope will be used by subsequent crops at some time, and this means that our levels of fertilizer in the soil, in any normal fertilization practice, are going to increase.

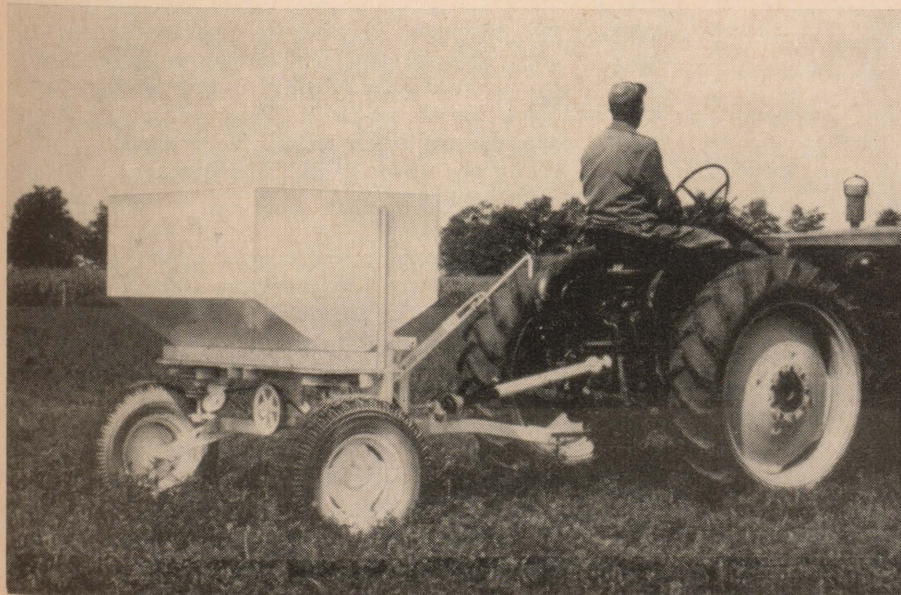
Q. Does this then lessen the value of a soil test?

A. If you are going to make money and save money, you should use a soil test, but I don't think this has to be done every year. It is going to make you money in that you're going to put fertilizer on for optimum yield. It is going to save you money in that you're not going to put fertilizer on that you don't need. It takes much of the guesswork out of the fertilization business. Facilities are generally geared for fall soil-testing and this is the time when you can get your results back quickly and get the fertilizer on if you wish.

Q. In summary, would you like to enumerate the values as you see them of fall fertilizing, Dr. MacKenzie?

A. Yes. First of all, convenience. Secondly, ease of application. Third, lowest cost fertilizers are available. Fourth, labour is available. These are probably the main advantages. The disadvantages are reduced effectiveness, and the fact that you must know what you will be growing next year.

Many fertilizer firms will rent out small bulk spreaders to their customers to supplement the services of their hopper trucks.



PLAN —

(continued from page 4)

taken place? What about the schools, churches, transportation and all the other community facilities, are they up to date?

The length of this list will depend on just how many details you decide are necessary. Maybe you only want to have a discussion about changes in your community with friends, or perhaps you want to do a detailed community analysis, this will depend on you.

When we get right down to it — the reasons why communities exist are quite simple, they have something to sell to someone. Every community has resources, maybe they are hayfields, forests, coal mines or homes, or the people have some special talents, but they all have some. And maybe your community once had a resource which has dwindled, the mining and forests, industries may be gone, no wonder people were forced to leave the community. Or the changes in agricultural technology is such that fewer persons are employed in agriculture or a new industry has moved to your community, these changes and similar ones, will account for your community's present position.

If more rural communities really studied themselves, I maintain we would make better community decisions based on facts. Of course the A.R.D.A. program is doing surveys of this nature and these studies should provide the basis for sound planning for some counties. But frequently these plans are completed by consultants, and too often the completed plan is considered the goal instead of the starting point — too often nothing happens once the plan on paper has been prepared.

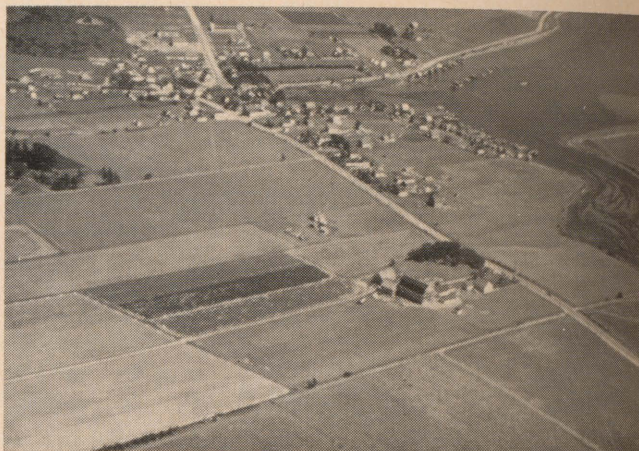
I think local people should be involved in the fact-gathering and inventorying process. The facts they put together for their own community will be interesting and meaningful to them. It will be an educational and rewarding experience.

With the information at hand, then and only then can some concrete plans be made. This task isn't easy, but when the study is completed I'm sure that some of the questions why your community is what it is, will be answered. This should provide a birdseye view of your own community, it should help you to see each segment of the community with regard to all others.

Then you can do something about the way things are, based on factual information. We can plan for the future. We can all improve ourselves and our communities — if we really try, don't wait for someone else, they're waiting for you.

COMMUNITY RESOURCE DEVELOPMENT — WHAT IS IT?

by Galen Driver*



Take a close look — notice the sprawling town. Which farm will be carved up next? Could this happen in your community?

It's Not New:

We frequently hear people talk about Community Development as if it's some new idea. It isn't. Community Development began in North America when the first man discovered this country and decided someone could live here, and that goes far back before Columbus sailed the ocean blue. But today we may be looking at a different and a more specific kind of development, but even with today's improved means of communication and our supposedly higher level of understanding it is still difficult to understand what we're talking about.

To some communities C.D. means the Federally and Provincially sponsored program for resource development or ARDA. Others haven't heard of the Agricultural Rural Development Act. But Community Development is more than governmental programs specifically aimed at development. It is a combination of many programs planned for rural, urban, industrial, commercial, recreation and other areas of growth. And most of all it involves people; people are the reason for the planning. They will carry out and benefit from the net result of all the programs. In this article I will try to convey my thoughts on what Community Resource Development is.

It has many names:

There is a complex assortment of words describing Community Development. Some people call it Community Resource Development, others call it Development of Natural Resources, still others have other terms which apparently mean different things to different people. I like the term "Community Resource Development". To me these words have a real meaning. To me Community Resource Development means **people working together with the resources they have control of, for the good of themselves and the Community.**

Some Other Definitions:

Yet another definition says community resource development must be primarily concerned with the devel-

opment of motivated, educated, trained and informed citizens.

And still another more formal and all inclusive definition reads like this. "It is a process of social action in which the people of a community organize themselves for planning and action; define their common and individual needs and problems; make group and individual plans to meet their needs and solve their problems; execute these plans with a maximum of reliance upon community resources; and supplement these resources, when necessary with services and materials from governmental and non-governmental agencies outside the community".

Let's look at the standard definitions for these three basic terms :

Community: A group of people living together in a geographic location and having interests (work, etc.) in common.

Resource: Something that lies ready for use or can be drawn upon for aid; supply of something to take care of a need.

Development: A step or stage in growth, advancement, etc.

What Are We Talking About?

There are a host of people who say that community resource development means increased employment opportunities, increased income per capita and improved social opportunities as an end product.

From an educational standpoint, resource development is the process of providing motivation, educational guidance, and organizational and technical assistance to group action, through citizen committees and organizations. In other words, it is the beginning of economic change through enlightened group action. The aim is to help people with the greatest need, to involve them in projects for their own economic good, and to help generate extra income for those who need it most.

Certainly progress or resource development means moving forward, towards perfection or to something considered better than it was before. There must be a goal, planned or informally agreed upon. But not all change is progress. Progress is change in the right direction. Now what is the right direction?

Some Community Goals:

Community goals may be difficult to establish. Not every person wants the same thing for his community. We are all different. First, there must be an assessment of the problem confronting the community. These problems must be approached in a comprehensive way so that their solutions may mutually assist each other. It isn't always easy to establish community goals. It will take time. It will be an important step in the community resource development program.

It is an involved program:

A planned community resource development program can be involved in many ways in many projects. It deals with all types of resources. This program is broad, it can include a small project such as a study group on town taxation or a large watershed project which affects several counties and several thousand acres and costs millions of dollars. But whatever program is considered, there are only three kinds of community resources to work with :

Natural Resources — the land, water, climate, minerals etc.

Human Resources — the people and their attitudes, skills and talents.

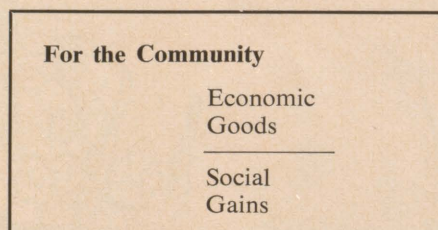
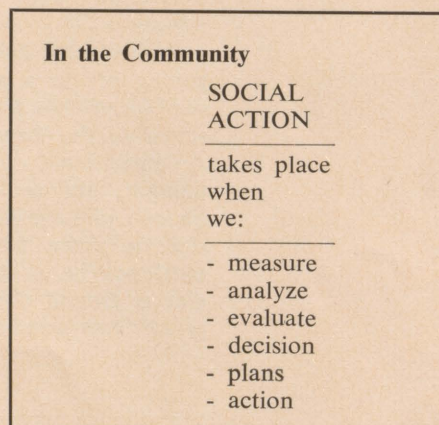
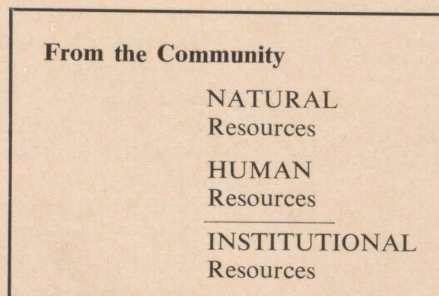
Institutional Resources — the schools, churches, markets governmental groups, other organizations and services which fill community needs.

From these three simple terms one is amazed how complex and involved community development can be.

But when we stop to think of the range and scope of possible programs we are not surprised.

Planned community and area resource development is unique in that it makes an effort to consider all inter-related factors of society and economics. It recognizes the inter-dependence of farm and non-farm, rural and urban people. It calls upon the special skills and services of many people and agencies to help solve the problems of imbalance wherever they exist.

This simple sketch may help to show some of the factors we're talking about.



Community resource development is an on-going continuous process. It involves people, things and change. That means we are all involved. The part we play in the development of our own Community will depend on us.

* Galen Driver, assistant director of extension at Macdonald College recently completed his master's program in Agricultural Extension and Resource Development.

LET'S BRING TH

By Celia Fergusson,

When the Clematis is a mass of purple blossoms and the Peace Rose has never before produced a bloom so large and perfect, who is not reluctant to leave the garden and go indoors! But why leave it — just take its beauty with you.

The beauty of flowers may even be enhanced indoors. Their delicate form and lovely colouring may be complemented in an artistic arrangement. Their full perfection may be emphasized by a contrasting background. A single blossom may stand alone in a vase, and reign in solitary splendour.

You may think this is all very true, but that flower arranging is something for the experts. Banish the thought. Flower arranging is for everyone, and who knows what hidden talent it may reveal.

A few guide lines may be helpful in getting off to a good start. The first step is the choice of the container best suited to the flowers we plan to use. A conventional vase is usually our first thought, but so often the vases we happen to have are not just the right size or shape for our flowers. This need not be a discouragement, as a glance around the house will usually reveal any number of excellent con-

tainers. It might be a bean pot, or that pretty Willow milk jug with the chip in the spout. It could be Grandma's old black and gold teapot, or the pottery cookie jar that can never be kept filled with cookies. There might be a soup tureen, a copper pot or kettle, a comport, a shallow glass or china bowl, or even a wicker basket in which a gem jar may be placed to hold the flowers. The possibilities are inexhaustible.

The next step is to select a device to keep the flowers in position. Flowers have a most contrary habit of not staying in place as we have set them. They can usually be brought into submission by any of the varieties of holders on the market. There are the needle type, which come in many different shapes and sizes. Besides these there are the hair pin type, and the pottery and glass ones. These are sometimes not heavy enough to sit as they should, and tend to tip over. This fault can be corrected by anchoring them firmly down with modelling clay. Crumpled up chicken wire makes an excellent holder for use in a non-transparent container. Nature herself provides materials to use as holders. These are ferns, small cedar branches or moss, which can be



1 A-RIGHT



1 B-WRONG



2 A-RIGHT

GARDEN INDOORS

chool of Household Science

stuffed into the container. Sand and pebbles may serve the dual purpose of holding the flowers in place and also provide a means of raising the depth of the container, if the flower stems are short.

It is often difficult to stick thin stemmed flowers into holders. Try tying them in little bundles, and they will sit in the holder as good as gold. Also flower stems that have a tendency to split when put on a needle holder may be strengthened by wrapping the base of the stem with raffia. A partially broken or bent stem may be repaired by binding a little wooden or wire splint to the stem. This minor surgery can usually be concealed by other flowers and leaves in the arrangement.

With the mechanics of flower arranging now well in hand, we are ready to consider those elements that make for the artistry.

There should be a definite design in the form and composition of the arrangement. This is the plan in the relationship of the various parts of the arrangement, one to another, and their total relationship to the container.

The scale or relationship in size of the various flowers used together is important, as well as their relationship

to the container itself. Very large, bold flowers used with tiny ones spoil the effect of both, and needless to say look very silly in a small container. The height of the flowers, too, should be in proportion to the vase. A rule that is sometimes cited in this respect is that the flowers should be one and a half times the height of the container. However, this rule need not be followed to the letter, as lovely arrangements are often achieved when this rule is somewhat broken.

The proper balance in an arrangement adds greatly to its pleasing effect. It should not give the impression that it is about to fall over. If we think of an imaginary line drawn vertically through the arrangement, each side should have equal weight, although the flowers need not be arranged similarly.

Of all the factors in flower arranging it is colour that has the greatest influence in the final result. Colour also has a psychological effect. Bright coloured flowers create an air of cheerfulness and gaiety, while pastel shades give tranquility and peace. What delightful attributes to add to our home by bringing our flowers indoors!



2 B-WRONG



3 A-RIGHT



3 B-WRONG

THE FAMILY FARM

PUBLISHED IN THE INTERESTS OF THE FARMERS OF THE PROVINCE

BY THE
QUEBEC DEPARTMENT OF AGRICULTURE AND COLONIZATION

Compiled by T. Pickup of the Information and Research Service,
Quebec Department of Agriculture and Colonization.

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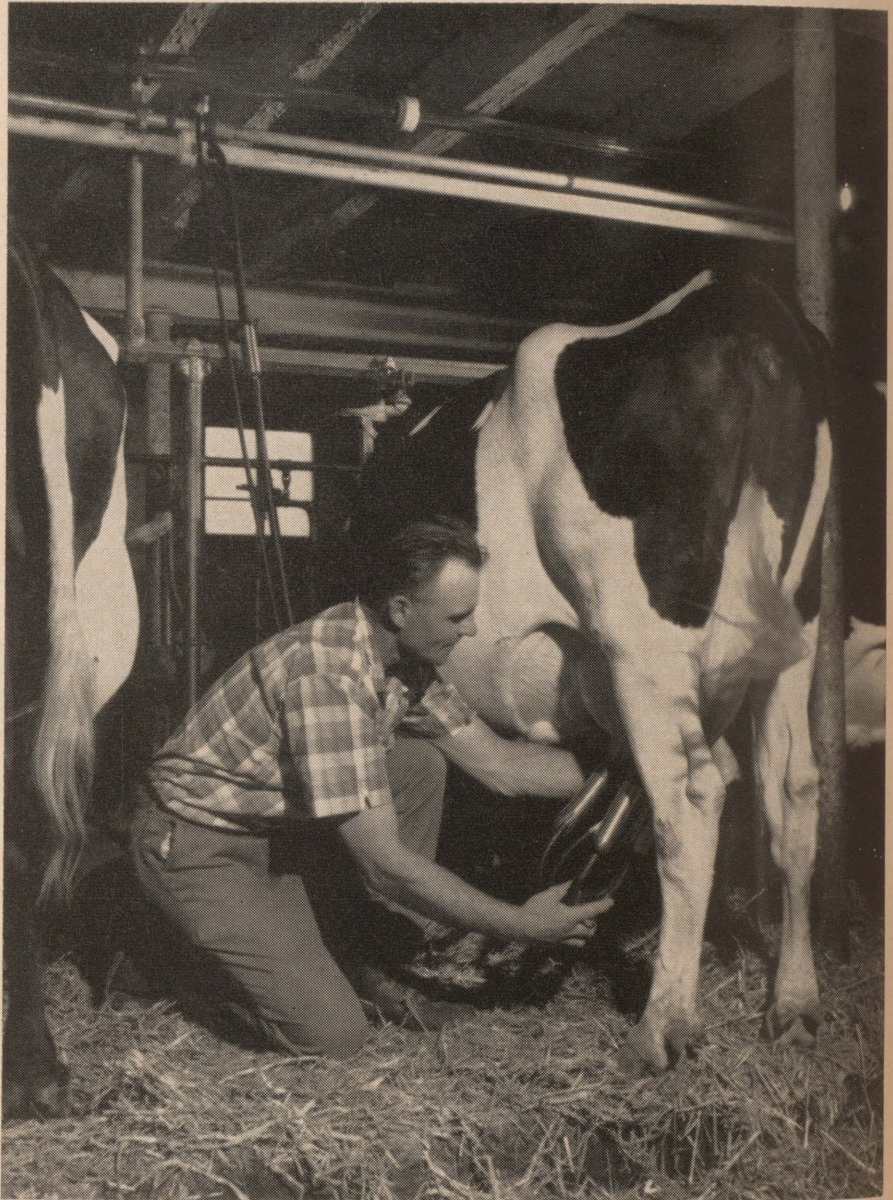
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Growing to treble the tomato
yield

Photographs by
Omer Beaudoin



Milking time on a Quebec farm

Milking by Quarters

A milking machine has been developed which automatically breaks the vacuum when a quarter is milked out. This would seem to be an excellent idea, which comes at the right time -- when we have one man looking after large numbers of cows.

Any aid to efficiency of this type, if not abused on the farm, could be of great value in reducing the age-old problem of teat damage and mastitis.

(From "Farmer and Stockbreeder"
April 5th, 1966)

New Timothy

W. R. Childers and L. P. Folkins, of CDA's Ottawa Research Station have developed a new strain of timothy with the one characteristic that others lack — the ability to bounce back quickly after cutting?

The new strain — appropriately named Champ — out-produced Climax in aftermath production at nine out of ten test locations last year.

It will be a few years before Champ makes its presence felt in Canada's hayfields. Although the strain is not yet licensed, 100 pounds of breeder seed will be planted for multiplication this spring. Seed should be in general supply in 1968.

Making hay while the sun shines in a field of timothy



This page supplied in the interests of the Family Farm by the Quebec Department of Agriculture and Colonization.

Sugar Beet Price Support

A support price of \$14.35 per standard ton for the 1966 sugar beet crop has been announced by Agriculture Minister J. J. Greene.

This level is the same as for the 1965 crop and is about 105 per cent of the base price or 10-year moving average.

The support year for the 1966 crop covers the 12-month period beginning September 1, 1966.

Mr. Greene said the announcement has been made promptly to assure growers of continued government support. This would assist them in reaching decisions on contracts and planning of the coming season.

However, he said, because the beginning of the support year was still about five months away, because there have been great variations in world prices, and because there had been a change in the basis of international price reporting, the details of the method of support would be developed and announced later by the Agricultural Stabilization Board.



A field of sugar beets on a Quebec farm.

New Antibiotic Discovered

A team of Canada Department of Agriculture scientists has discovered and developed a new broad-spectrum antibiotic which promises to be a major weapon against disease, Agriculture Minister J. J. Greene announced today.

The new antibiotic, called Myxin, is the result of several years' work done in the CDA's Research Branch by Dr. F. D. Cook, Dr. E. A. Peterson, and Dr. D. C. Gillespie.

Myxin is noteworthy for the following reasons:

1. In laboratory tests, it attacks a much wider variety of disease-causing organisms than any other known antibiotic. (The extent of its effectiveness is not yet known — especially in the field of human disease.)
2. It is extremely powerful. At concentrations of only a few parts per million, the antibiotic, in lab tests, has prevented growth of many bacteria, yeasts, and moulds known to be responsible for diseases in people, plants, and animals.
3. Because of its ease of production, it is probable that it will find wide use in controlling crop diseases for which treatment by antibiotics has not been economical up to now.
4. It is structurally different from existing antibiotics. This means that a new field of antibiotic research has been uncovered.

Dr. R. M. Hochster, who succeeded the late Dr. Harry Katznelson as director of the Microbiology Research Institute, Central Experimental Farm, Ottawa, where the discovery was made, said that further development and exhaustive testing must be done before the real value of the antibiotic can be established.

However, he said, Myxin appears to hold more promise than any other antibiotic did at the same stage of development.

Myxin has been tested in the laboratory with success against 34 species of bacteria, 49 species of fungi, 12 species of actinomycetes, and 12 species of yeast.

In the test-tube, it was effective against the organism responsible for tuberculosis and against the infectious bacterium, *Staphylococcus aureus*, which is troublesome in hospitals and currently resistant to other antibiotics. It is also extremely effective in lab tests against many species of plant pathogenic bac-

teria which cause such diseases as ring rot of potatoes, alfalfa, wilt, fireblight, of fruit trees, halo blight of oats, and fungi which cause such diseases as cereal roots rots.

The organism which produces Myxin is a member of a group of soil bacteria known as myxobacters.

The one-celled microbe was found by Dr. Cook when he was doing basic research on the relationship between soil bacteria, soil fertility, and the health of plants. His discovery was made in a sample taken from soil on the central Experimental Farm, well within Ottawa's city limits.

Dr. Cook found that these myxobacters prevented growth of many other organisms that were causing serious crop diseases. This growth prevention was the result of the production by the myxobacters of lytic enzymes that dissolved other bacteria. Later he saw that one strain of myxobacter produced no lytic enzymes but rather a red colored material which prevented the growth of bacteria.

Dr. Gillespie successfully extracted this colored material from broth in which myxobacters had grown. Tests by Dr. Cook and Dr. Peterson showed that this extract had the same killing effect that had been demonstrated by on plant foliage.

Dr. Gillespie developed methods of production, isolation, and purification of the antibiotic and succeeded in crystallizing it. This made it possible to carry out more extensive tests,

Further studies by Dr. Peterson showed that Myxin may be useful in combating plant diseases through seed treatment or by spraying the antibiotic the living culture

Some Myxin was sent to the University of Saskatchewan for further experimental work. Tests there indicate that antibiotic does not harm laboratory animals in the doses used.

Wide patent coverage is being obtained by Canadian Patents and Development Limited, the agency of the Federal Government concerned with patenting inventions by federal government employees.

Strong interest is being displayed by a number of pharmaceutical companies wishing to obtain licences to develop and produce this new product.

(From "This Month with CDA")

This page supplied in the interests of the Family Farm by the Quebec Department of Agriculture and Colonization.

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A lesson in flower growing. The Government of Quebec encourages gardening with grants to horticultural societies.

Horticultural Societies Guide for Secretaries

The Horticultural Societies Act requires that certain reports be submitted each year to the Department of Agriculture and Colonization in order that a Society may be considered to be active and entitled to the regular official grant. These reports must reach the Agricultural Organizations Section of the Department not later than the dates specified. The necessary forms may be obtained from the aforesaid Section.

Following is a list of the required reports, some information for the guidance of those responsible for using the official forms, and the dates when they are due.

1. *Financial report* (Statement of receipts and expenditures). This report should be sent to the Department following the Society's annual meeting but *not later than the 1st of December*.

The following details must be given in it:

In the *receipts* column: the amount on hand on October 31st of the preceding fiscal year and all sums received between November 1st in that year and October 31 of the current year.

In the *expenses* column: the amount of the deficit (if any) for the preceding fiscal year and all sums paid out

from November 1st of the preceding year to October 31st of the current year. The other pages of this form must also be completed if applicable. If the Society has spent money on prizes for contests or shows, the value of the prizes and the names of the prizewinners must be entered on the last page. Be sure to sign the report.

2. *Report of election*

This report must be sent in immediately after the election of the Society's officers for the year but *not later than December 31st*.

The Department must be informed *within six days* of any changes in the Society's directors or officers. The directors are to be elected at the annual general meeting in November. The officers (President and Vice-president) are to be chosen from among the directors at their first meeting following their election (usually on the same day). Please remember to sign this report.

3. *Programme*

This outline of the Society's proposed activities must be sent to the Department in duplicate as soon as it has been approved by the Board of Directors of the Society and *not later than March 15th*. If any changes are made in the programme after its

adoption, the Department must be informed of them *within six days* of the amendment.

This document consists of two separate parts — the budget and the programme. The programme must explain clearly what the Society offers to its members during the year. Be sure to sign.

4. *The sworn list of members*

This document must reach the Department *before December 31st* and must give the name and address of each member and the amount of the annual membership fee or subscription paid by him or her.

As a rule, the amount of this annual subscription is \$2.00 per member but some horticultural societies charge \$3.00. In order to qualify for the official grant a society must have at least 25 members. Remember to *sign* this document and *have it duly attested* by a Justice of the Peace or person authorized to take oaths. All these reports must be sent to: *The Horticultural Societies Section, Department of Agriculture and Colonization Parliament, Québec City.*

Gérard Hudon, Agronome,
Head of the Agricultural Organizations Section.

GROWING TO TREBLE THE TOMATO YIELD

Cheap, good quality tomatoes all the year round for the British housewife have become a possibility through research work done at the Glasshouses Crops Research Institute at Littlehampton, Sussex.

A new production method, based on restricting each tomato plant to producing only one truss of fruit, offers a yield of 120 tons an acre in a year compared with the national average of 40 tons an acre produced by conventional methods. A further advantage of the new production method lies in the fact that less handling is required to produce the new crop.

Ordinary tomato seedlings are used in the new method — no special genetic characteristics are required. The seedlings are planted very close together — 100,000 plants to an acre, six times the conventional planting density. Instead of individual pots, the plants are set in 20ft long channels cheaply made from glass fibre. The troughs are shaped as though they have been made from a plastic tube which has been slit along the top.

The water and liquid nutrients are supplied to the growing medium by a perforated plastic hose running along the bottom of the growing trough.

Mr George Sheard, the head of the horticultural division which developed the technique, said that the plants could be grown in either a soil or in a synthetic material such as vermiculite.

The plants are allowed to grow upwards until they have set their first truss of fruit; usually they are no more than 18 inches high. Two leaves are left above and then all growth above this is stopped. Any side shoots the tomato plant tries to grow are also nipped in the bud. In this manner, the plant's activity is solely converted into developing one truss of fruit.

Since each plant has only one truss, the fruit all ripens at the same time instead of over the period of several months taken by the fruit on a plant carrying several trusses. The fact that all the fruit does ripen together enables the grower to modify the heat and nutrient supply to optimize ripening of the crop.

But the housewife is not solely interested in cheapness; the fruit has to be of good quality. In this aspect, the new technique looks as if it will score hands down. Results from GCRI show that 90 per cent of the fruit is of top grade quality compared with 60-65 per cent of that produced by the conventional methods. And although taste is a rather subjective attribute, it is claimed that the new growing techniques produce better tasting tomatoes.

(From "The New Scientist")

A HOUSE OF STRAW

Mr Len Dickinson of Ives Farm near York in England rears calves in "throw-away" house of straw bales holding 31 calves.

The straw house, designed to guard against the disease build-up that is so often the bugbear of calf nurseries, consists of walls as thick as the length of a bale, built round a timber frame which carries a roof of two thicknesses of polythene lying on wire netting. The lower layer of polythene consists of fertilizer bags, to keep the upper layer — a clear sheet — off the wire.

Paper bags are placed between the layers for insulation, with spaces being left clear here and there to let the light in. Calves are penned singly in 3ft x 4ft wire and timber pens. Ventilation is through gaps which can be plugged with straw or left open according to weather conditions. There is no heating. While the house is being rested, Mr Dickinson plans to soak the timber from the pens in creosote to disinfect them. He intends to continue using the house as long as possible, but if there is any sign of a disease build-up or even loss of thriftiness in the calves (this would show up quickly since Mr Dickinson keeps careful records of each batch), he can afford to put a match to it.

(From "Farmer and Stockbreeder")

AGRICULTURAL RESEARCH IN UNIVERSITIES

A new form of federal assistance to agricultural research carried on outside the Canada Department of Agriculture is available this year for the first time.

Grants similar in character to those made by the National RESEARCH Council for many years will be made annually by CDA in support of agricultural research through additional funds made available to the department for that purpose.

For 1966 the Department has distributed a total of \$304,660, among eight universities and colleges, the full sum available for this purpose this year. There were 155 applications for the grants which went to 71 professors heading projects at eight universities and colleges.

Allocation of the funds was made by CDA's Operating Grants Committee comprising senior officials of the Research Branch and deans of faculties of agriculture.

Recipients were: University of Alberta \$50,940; University of British Columbia \$27,000; University of Guelph \$55,670; Laval University \$23,300; Macdonald College \$41,700; University of Manitoba \$44,500; Veterinary College of the Province of Quebec \$8,000; University of Saskatchewan \$53,550.

K. T. BRADLEY APPOINTED COORDINATOR FOR ARDA AT OTTAWA

The Civil Service Commission of Canada has announced the appointment of Mr. Keith T. Bradley of Knowlton, Quebec to the position of coordinator in the community development branch of ARDA at Ottawa.

Mr. Bradley's task will consist mainly of coordinating activities related to community development and helping to design policies and measures to provide employment and raise living standards in rural areas. He will seek to enlist the active participation of the local populations in regional development enterprises and programmes and to ensure close liaison between the federal and provincial governments, private organizations, and local authorities.

Mr. Bradley obtained his B.Sc. from McGill University in 1949 after specializing in Animal Science. Until 1958, he operated a farm near Mansonville in Brome County and later held the post of County Agronomist in the Extension Branch of the Quebec Department of Agriculture and Colonization. During this time he also studied Adult Education at the Universities of Vermont and Colorado.

In 1964, he was awarded a Master's degree in adult education by the University of Vermont. He then joined the extension service of that University as a specialist in resource management and worked in that field in the south of the State of Vermont.

Mr. Bradley's latest appointment was made following his participation in a competition held by the Civil Service of Canada.

BENEFITS OF CROSS-BREEDING

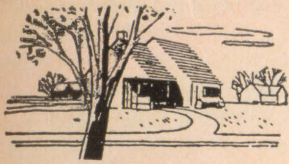
Cross-breeding improves the fertility of dairy cows and it increases the chances of calves living. These are two have become apparent in the 17-year trials of crossing and cyclic breeding of dairy cattle at the Animal Breeding Research Organization's Cold Norton Farm at Stone, Staffordshire.

HOGS FAULTED

Grade B hogs in Eastern Canada were faulted 94.8% for being over-finished, while 89% of Western B hogs were criticized for this reason.

There was still a significant number of hogs that missed the A grade because of improper weight.

This page supplied in the interests of the Family Farm by the Quebec Department of Agriculture and Colonization.



THE BETTER IMPULSE . . .

News and Views of the Women's Institute of Quebec



MEMBERS OF AYLMER EAST WOMEN'S INSTITUTE. Front row from left to right: Mrs. Beryl Radmore, 1st vice-president; Mrs. Pearl Leach, treasurer; Mrs. Grace Holmes, president, Mrs. Hazel Routliffe, secretary and Mrs. Evelyn MacLean, 2nd vice-president. Back row, left to right; Mrs. L. Cadieux, Mrs. Doreen Pon, Mrs. Aileen MacKenzie, Mrs. Ella Craig, Mrs. Pearl Hopkins, Miss Hilda Graham, Mrs. Doris O'Grady, Mrs. Margaret Fuller, Mrs. Christy Ferris, Mrs. Irene Cockburn, Mrs. Florence Ferris and Mrs. Ada Routliffe. (Photo by Alex Whelan Studio)

FROM THE OFFICE

Are you watching the closing dates for the Tweedsmuir contests?

Citizenship Project — an original story based on a Canadian Historical fact. The Chairman said in her report to the FWIC Board in April that she had but one enquiry.

Closing date April 15, 1967.

Tweedsmuir History, Centennial Poem, and Drawn Thread Work — closing date Apr. 1, 1967.

Please note these are the National closing dates. They have to be judged provincially first — date will be put in Journal Later.

Found in Assembly Hall — black notebook and pen.

Pen Pals wanted — Mrs. J. M. Wadsworth, 72 Knowsley Way, Hildenborough, Lonbridge, Kent, England, asking on behalf of her WI for a contact with an Institute in Canada. She says Hildenborough is a village 28 miles from London. Husbands are commuters to work in London, and the WI is young both in age of members and the branch.

Re Expo tickets: the closing date of the first low rates if July 31, which is a Sunday. This means that orders have to leave the College P.O. by July 29th Please make cheques and money orders payable to Norma E. Holmes. Otherwise cheques have to go to Provincial Treasurer.

Toast to the Queen: At the FWIC Board Meeting it was suggested a uniform procedure for proposing the toast to the Queen be followed, so here it is for WI members: Rise, lift glass to eye level, and drink, saying "The Queen".

QWI 52nd ANNUAL CONVENTION UNFINISHED BUSINESS:

The QWI Mosaics ready for editing. Cost of printing is being investigated.

QWI Handbook: No Charter has been found. The Committee would appreciate the loan of any Handbook printed prior to 1924.

FWIC slides: Quebec's share of 24 have been sent to the Nat. Office. These are on loan to the provinces. Address request to QWI Office.

Centennial chair for P.E.I.: Mrs. Mackenzie, Gatineau Co. will do the needlepoint for the QWI chair back.

Excellent reports were submitted by Prov. Convenors on the year's work in their departments. Reminders: a) Branches will be responsible for replacing lost pamphlets borrowed from the Library b) No branch is to ask for a government grant without first consulting the Executive.

NEW BUSINESS:

A motion was introduced to sponsor a student annually to the UN Seminar. This was defeated, but replaced by a motion to donate \$50 for one year to

sponsor a rural youth to the UN Seminar. A further motion was carried requesting each branch to contribute 50c towards this expense, to be sent in by November, 1966.

It was also moved to give \$100 to the McLennan Travelling Library as in former years.

The Northern Extension Fund is to be continued. This is for our own work in northern Quebec. Branches asked to take up collection at October meeting.

Drama Contest: The following counties will be eligible for the 1967 contest — Papineau, Quebec, Megantic, Pontiac, Bonaventure and Abitibi East.

Salada Contest: Announcement will be sent out later regarding next year's contest.

Two Resolutions are to be forwarded to the proper authorities from the Convention. a) That we in Quebec set an example by having all road signs throughout the Province in the two official languages. b) That ash trays and litter receptacles be placed in all buses.

There is no change in officers for the coming year. There were some interesting questions in the Question Box, so they with the answers have been printed separately and will be going to all branches in the monthly mailing along with Convenors Outlines and Convention Minutes.

Highlights of the Convention were:

Mrs. Dion's tea for the Board at Glenaladable and the visit to the Pottery Dept.; the four plays of the drama Contest, the winner being Compton Co. (East Angus WI), in 2nd place Missisquoi and Gatineau and Shefford in 3rd; the singsongs with our Mrs. Toy at the piano, and led by Mrs. Bulley, Argenteuil Co. who celebrated her 82nd birthday June 27th; and the evening "teas" served by Ste. Annes WI. The Handicraft Exhibit consisted mostly of the Salada entries, but we hope for a larger display in 1967 because of the Centennial, and also the foreign WI visitors to Expo.

THE PRESIDENT'S ADDRESS

It is difficult indeed to realise that another year has rolled away and again it is my great pleasure to welcome you to this our 52nd Annual Convention. To Dr. Dion and his staff may I express once again on behalf of the Executive and our assembled delegates our great happiness at being so privileged in holding our Convention each year in these beautiful surroundings. As the years pass our affection for Macdonald grows ever deeper, and we marvel at the never changing kindness we receive.

Once again we are indebted to Prof. Helen Neilson, Director of Home Economics at Macdonald College, and her staff, and to Mr. Walker Riley of the Extension Department for their assistance in arranging our Leadership Course. We are grateful indeed for the time and planning put into this project by these already extremely busy people and we trust that those members privileged to attend the Course will demonstrate qualities of Leadership in their own communities.

Our thanks to all of our guests who have come to bring us greetings on behalf of their organizations and may I hope that the future will serve only to strengthen our association with you and that we may each learn from the other.

To the Department of Agriculture, without whose assistance we could not function, may we once again gratefully acknowledge the help we receive.

For over fifty years the Quebec Women's Institutes have worked to raise the standard of living for rural women and by our deeds are we known. The theme of this Convention is "For Changing Days — A Change of Ways". I thought once of adding a question mark to this, and the Quebec Election had not been held when it was chosen, but although many are of the opinion that perhaps the changes in Quebec have been too rapid, there are few who would not say that the changes have been, for the most part, good.

In my address to you last year I spoke of the quiet revolution in Quebec and that unfortunately in the rural areas some of the changes were met with distrust and resentment. Perhaps we, who do not live in the urban areas, are slower to make up our minds and are more apt to resent anything that causes us to change our settled ways. We must, however, not allow ourselves to be so imprisoned in the old way of doing things that we are afraid of new things because they are new and we must, while being grateful for that which is past, open our minds to the future so that we can take our place in this changing society.

Many of us are worried concerning the changes in education, but here we must learn to accept and realise that we must always move ahead or be left behind. Remember always that education begins in the home, that it is in the home that the lesson of love and trust is taught. That it is in the home throughout childhood and youth that the young people learn the morals and manners, the discipline and honesty which will help make them responsible citizens and that we can give the security and understanding which young people so much need today. Our young people seem to be forever searching for something fresh and new, and sometimes we think they are foolish, but I know many of us remember bobbed hair, short tight skirts, long tight hobbled skirts and crazy songs and dances

The Quebec Women's Institute started over sixty years ago to improve the standards of living in the home, for pasteurization of milk, for improvements in Health and Welfare, for better roads and better schools. Many of these things we have helped accomplish, but now I think one of the most needed things in any community is a more stable family life and a realization that the strength of a country, of a community, lies in the quality of the home life.

Somewhere I read that a Convention is a "group of people who individually know they can do nothing and annually come together to decide that nothing can be done". The person who wrote that knew nothing about a Women's Institute Convention because we are famous for doing things individually and collectively, and annually come together to report and perhaps boast a little about what we have done.

It takes gas to run a car but they say that the Women's Institutes run on tea. It is true that many of our plans are made over the teacups, but do you not think that we should be proud of our accomplishments. A branch just two years old in the Northern Area

with an Indian camp nearby, coaxed and cajoled the powers that be until they installed a mobile bath house and a two-tub laundry unit for their Indian neighbours. And what about a branch in the townships which did something about a library. Not just a shelf of books but an up-to-date library with hundreds of fine catalogued books and tentative plans for a regular Saturday morning Story Telling time for the youngsters. Just a sample of how we run on tea and gas.

The fundamental aims of our organization are sound and good and need no change, but it is in our approach to them that we must change. It is not enough to be a member, we must be a good member, remembering that we should try to live our Creed. It is difficult indeed to be calm, serene, gentle in these hectic days and avoid those little things which create differences. We must change our attitudes in the way our older members welcome young women into our branches and our young women in the way they value the work of these older women who have given many years of valuable service. All are needed, all are welcome, all are valued members. Years ago when Women's Institutes were much younger, our members were all drawn from rural areas. At our Leadership Course this year less than a quarter of the delegates obtained their living from Agriculture and yet we learned that our interests and problems were in many cases similar and that we really worked together for the same ideals, whether we were wives of fishermen, farmers, or connected with industry or mining.

Before we meet again for our next Annual Convention, Canada will have begun to celebrate her 100th birthday. I know that we have projects on which we have worked and are still working. Every community will, I hope, wake up and really celebrate. I hope that bells will ring and people sing and we will truly say to all the world that we are happy. Those who work on the Centennial plans are disappointed that there is so little interest shown. How about the Women's Institutes stirring things up a little more in their communities with perhaps a little fun and frivolity too.

And don't forget to cut yourself a large slice of birthday cake by going to Expo 67. As I travel around sometimes I catch my breath at so much beauty around me and I ache with the desire to be able to catch and hold onto the beauty of our Laurentian sunset, the many shades of green on a hillside or the glorious colouring of our lovely maples in the fall. Add to

(continued on page 21)

The Month With The W. I.

The **Christmas Stocking Project** has once again caught the imagination of many branches who have made and filled many stockings with gifts for children in other lands. A little bit of Christmas from Canada will be found in many faraway places this coming year.

All Counties report **Annual Conventions** being held, and with visits from Provincial officers being much enjoyed. Good reports of these conventions have gone back to all branches.

Some of the delegates to the **Leadership Course** have already given outlines of the work done and things learned, and are spreading their new information and assistance where branches request it.

ABITIBI EAST : Matagami entertained President Mrs Ossington at a birthday dinner marking their second anniversary; hostess for County Convention. **Val D'Or** gave chocolates and baskets to children at Lamy Institute; made and sold pot-holders to raise funds.

BONAVENTURE : Black Cape enjoyed trip to Cullen's Brook to a member's home; gave safety hints; papers on Prevention of T.B. by BCG; and on Top Ten Student Characteristics most valued by teachers, and on "Is the Work of the WI Aimless?"; letters from foster child read; contest on table manners; good report of Leadership Course by delegate Mrs. N. Campbell. **Grand Cascapedia** heard pamphlet on Mary Stewart Collect; get well cards sent; report of County Convention. **Marcel** : report of Leadership Course by delegate distributed garden seeds for school fair, and arranged prize list; donated to St James Anglican Church in Memoriam to the late Mrs. H. Mortimer, honorary Vice-Pres. Bonaventure WI's, and past Provincial Convener Citizenship, with Port Daniel and Marcel WI's acting as honorary pallbearers. **Port Daniel** to present Canadian Flag to Shigawake School.

BROME : Abercorn presented the old "Diamond Rock Stove" from the WI Hall, to the Knowlton Historical Society; stove made in Bedford in 1881; exchange of slips and bulbs; contest on what one could make out of a flour bag with prizes given; also



Mrs. G. McGibbon, 2nd from L. QWI 1st Vice Pres., presented 3 Life Membership pins at Arundel's 20th anniversary, held at The Pines, St. Jovite. Recipients were L. Mrs. E. Bulley (oldest member), Mrs. Alvin Graham, Press Arundel WI and Mrs. Mary Graham. In the back row with Mrs. McGibbon is Mrs. C. Hall, Argenteuil Co. President.

contest on agriculture; are painting WI Hall. **Austin** working towards Garden Party, distributed tickets; made and collected articles for sale, received donations for sewing table; received yard goods from several sources which will be sold or made up for sale; report on Leadership Course. **Knowlton's Land- ing** help plant sale; gave hints on gardening. **South Bolton** : Mr. D. Lee spoke on ARDA and BCRDA; Mrs. I. Wightman reported on Leadership Course; Mrs. D. Lee told of her trip to Expo Site with some school children; entertained Austin Branch; auction of plants, slips, seeds, bulbs. **CHATEAU-GUAY-HUNTINGDON : AUBREY-Riverfield** sent patterns on sewing and crocheting to NTWI's; held grandmothers night; 2 donations to Barrie Memorial Hospital in memory of two life members, sisters-in-law, Mrs. J. Reddick and Mrs. E. Robb, who died in the same week; donations also to Chateaugay Valley Music Festival and to Huntingdon Retarded Children's Class. **Dewittville** : MRS. R. Grant of Ormstown gave talk on Brading Rugs; discussion held on need for V.O.N. in this area; Expo tickets given as prizes to winners of Public Speaking contest. **Hemmingford** sent good used clothing to Douglas Hospital; held tea for member who is moving; distributed school fair prize lists — with prizes in some

classes Expo tickets; sold refreshments at Auction to raise funds. **Howick** : Mrs. Bradley gave talk on Vanier family; Mme. Vanier to be present at laying of cornerstone of new building on site of Battle of Chateaugay; donated to Northern WI's, to Hoodless Home, to Freedom from Hunger; prizes to winners in Music Festival. **Huntingdon** : Grandmothers Day program; articles read on life of Miss Agnes McPhail and Mme. Ida Cormier; discussion on student Loan fund operated by the Branch. **Ormstown** : display of shortbread and cookies, judged and prizes given.

COMPTON : Brookbury gave donations for prizes to Bishopton Elementary and Bury High Schools, also for public speaking contest. **Canterbury** heard talk by Captain Smith of Scots-town, on the Church Army, the work of Evangelism and Christian Social Service. **Cookshire** : Miss E. Primmerman showed slides on South America with interesting commentary; articles read from Federated News, CAC, NWT booklet, ACWW, FAO; brochure sent to "Link" in England; donation to Sherbrooke Hospital. **East Angus** held successful paper drive; sale of plants and bulbs; each gave an item of interest from years gone by. **East Clifton** bought a new flag; articles of clothing sent to Save the Children. **Sawyerville** worked on play "When Women Meet". **Scotstown** presented their play in Pope Memorial School, Bury.

GASPE : Douglastown named a country they would like to visit and why, successful card party. **Gaspe** named a rare plant and where it is found; paper on education and high unemployment of "dropouts"; congratulations sent to Mrs. Beaulieu chosen Mother of the Year; donated to County Scholarship Fund. **Haldimand** heard distinguished speaker, Dr. Fortier, with talk and discussion on medicare, and possibility of new hospital; work calendar for the month — aprons. **Murdochville** : quiz on Canadian History; successful card party; roll call — made a hat from any kitchen material; entertained County Convention. **Wakeham** saw slides of the Peace Garden, and of Northern Women's Institute; each member gave an item concerning WI work in other countries. **York** to collect for Pennies

for Friendship, has each member donate the number of pennies which equal her age, in her birth month; raised funds through food sale, and a rummage sale, and with talent money; donated to County Scholarship Fund, also gave prizes at Gaspé High School; quiz on commercials and on geography; contest, scrambled letters, names of flowers and vegetables; used clothing sent to Christ the King Sisters.

JACQUES CARTIER: Ste Anne's donated large sum of money, raised by selling quilt made by members and in other ways, to purchase a wheel chair for Lachine Hospital, with balance to be used for furnishings in children's ward; Mrs. Cecil reported on Leadership Course; article on how to choose and to cook apples; served evening refreshments at Provincial Convention.

MEGANTIC: Both branches dis-

cussed Centennial projects. **Inverness** held geography quiz; for roll call described their wedding dress. **Kinnear's Mills;** held successful card party; named their birthplace.

MISSISQUOI: All four branches contributed to a successful Dramatic Evening, with Dunham the winner. **Cowanville** entertained residents of local home for elderly people by holding a rehearsal of their play in the home.

Dunham: a member gave report of Leadership Course; another showed articles for Cancer Home patients.

Fordyce: Mr. A. Hobbs, F. E. spoke on preparation, landscaping etc of picnic area owned by this branch; member reported on her attendance at Leadership Course. **Stanbridge East** gave suggestions on how to grow old gracefully; contest on jumbled words, each referring to an article in the room.

MONTCALM: Rawdon held social evening with many guests present; Mr. Reedyk showed variety of beautiful slides, some of which were close-ups of birds, squirrels and raccoons, with most interesting comments on the different types, the study of which is one of Mr. Reedyk's hobbies: there was enthusiastic appreciation of his expert photography.

PAPINEAU: Lochaber named a provincial emblem of Canada; hobbies displayed; enjoyed visit of Mrs. McGibbon and her talk on ACWW conference, with display of souvenirs; renewed subscription to Federated News; collecting clothes for Unitarian Service; some members canvassed for CNIB.

QUEBEC: Valcartier: Mrs. Johnston gave interesting talk on her trip to Leadership Course; card sent to President, Miss M. Goodfellow visiting in California; gift sent to couple seriously injured and hospitalized as result of accident; amount of \$2.00 donated to each grade in the 2 schools to be used as prizes; WI Canteen to be painted and signs put up on WI grounds; planned their annual Canada Day Dance, July 1.

RICHMOND: Cleveland entertained Melbourne Ridge. **Denison's Mills** saved used stamps for Red Cross; donated to Historical Society; brought an article for Sunshine baskets. **Gore** had as guest, Mrs. J. Durrant, member of Old Felixstowe WI in Suffolk England for 40 years, where she has been in charge of produce, has acted as judge at many fairs; she spoke on WI in England, branch presented her with QWI History and Maple cakes; her daughter Mrs. Scott is a member of Gore; sold Expo tickets; catered a supper for RDA Teachers Association; sale of slips and plants. **Melbourne Ridge:** Mrs. J. Jawker reported on Leadership Course she at-

tented; contest on fancy breads won by Mrs. E. Nelson and Mrs. L. Driver; Mrs. Taber gave a talk on Radio; had hall re-wired and heard report from committee on beautification of hall. **Richmond Hill:** bought another hot plate for their hall; quilted; remembered four children at Dixville home with birthday gifts; contest on official flowers of each province. **Shipton** brought in cancer dressings; contest on number of words made from Home Economics; over \$450 collected for Cancer Society with help of Cercle de Fermieres and Mrs. Boreham of Denisons Mills Branch. **Spooner Pond's** roll call was what are you doing to make Canada lovelier? sold Expo tickets; gift to member and her husband on their 50th wedding anniversary; seeds distributed to children for school fair; Mrs. Hutchings donated a child's smocked dress for sale; demonstrations on needlepoint and tuck weaving.

ROUVILLE: Abbotsford: translation of article from La Terre and Le Foyer, presented by Mrs. Pelletier; translation entitled "Women Facing Progress" was broadened as Mrs. Pelletier and Mrs. H. Marshall interjected some dialogue in French and in English; submission of name of Mrs. Marshall nominee for member of Granby School Board.

SHEFFORD: Granby West member attended Leadership Course; contest on agriculture. **Granby Hill** donated diapers to Cecil Butters Home; parcel to forgotten patient at Douglas Hospital. **Waterloo-Warden** held food sale; contest on different kinds of spices, to identify the spice in each small package.

SHERBROOKE: Ascot: Mr. Richardson showed coloured slides of garden in BC and local scenes; sale of seeds plants and bulbs; donation to dental fund at Maplemont Home. **Belvedere:** held spelling bee with prizes; bake sale and rummage sale; proceeds from Salada symbols to go to Pennies for Friendship. **Brompton Road** held meeting at Grace Christian Home, honouring all the grandmothers with a corsage, and member grandmothers with a pin; entered Salada Foods competition. **Lennoxville** for roll call named local industries; articles read on Maple trees to grow in Norway, Eskimo girls who leave the Arctic, Mildew, Special Foods for older people; Mrs. M. Worster, member, celebrated her 93rd birthday; one entry in Salada Foods competition; entertained branches from other counties.

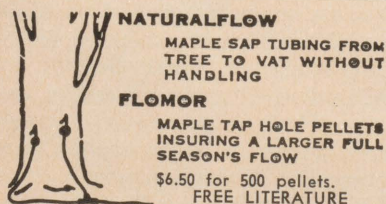
STANSTEAD: Beebe held cookie sale; branch representative attended 2 meetings re Centennial project in community; Mother's Day flowers and



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corsages made and sold, with money donated to 4 hospitals in their area. **Hatley's** representative to Leadership Course gave her report. Mrs. McClary, RN gave demonstration on first aid; donated to Estella Holmes Scholarship and to art prizes for children at school fair; canvassed for the Blind; held paper drive; entertained County Annual Convention. **Hatley Center** held jelly roll contest; welcomed 3 new members; voted money for art classes at County Fair, and school prizes at School Fair; joined another branch for Centennial project. **Tomifobia** named a garden hint; quiz on Convention; played a grab game; Mrs. V. Naive led discussion on regional school project.

VAUDREUIL: Harwood enjoyed seeing slides taken in Philippine Islands were son of a member is doing missionary work; roadside picnic tables owned by the branch have been repaired with new tops, painted bright green with yellow lettering and placed out for summer use; they have been very popular during the 5 years they have been in use.

DRAMA CONTEST

Judged by Prof. H. A. Morrison, Macdonald College

1st Prize to Compton County (East Angus WI): "A Radio Broadcast, Station HELP"

2nd Prize (tied) Gatineau County (Aylmer E. WI): "This Cake has Seven Muscles" Missisquoi County (Dunham WI): "Birds of a Feather"

3rd Prize — Shefford County (Waterloo-Warden WI): "Three Errors"

ADDRESS —

(continued from page 18)

this the freedom to vote and criticise our governments, to worship as we wish, more than enough to eat for most of us, and so much, much more than the most of the world, don't you think that we have every reason in the world to say, "I am proud and happy to be a Canadian"?

MRS. J. OSSINGTON
Q. W. I. PRESIDENT

MACHINERY —

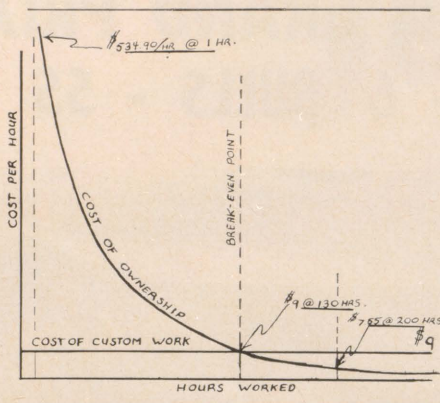
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combine can be determined in much the same manner, but the individual factors such as cost are more difficult to determine. There are alternatives to outright ownership such as rental, which are unreasonable with a \$120 harrow, but which make good sense when the machine in question is a \$5,500 combine.

We shall assume that it has been proven more profitable in this case to grow grain than to buy it. Also, we accept the decision that this grain will

be combined instead of bound, stooked and threshed.

Our grain grower is now faced with the question, "Is it cheaper to buy my own combine, or hire a custom machine?" Since the yield will be the same in either case, the problem is not to compare costs with returns, but rather the cost of one alternative with the cost of the other. Thus we encounter a



straightforward idea which the economist calls **opportunity cost**. Stated simply, it says that every dollar should be used where it will bring the highest returns. If a garage fixes tires for \$1.50 and I can buy the repair kit for \$1.00, will I save money by fixing the tire myself? If I value my time at \$1.25 and it takes me one hour to do the job, then I'm losing 75¢ by doing it myself. I invested \$1.25 worth of labour to save 50¢. Obviously stupid, but the same mistake is made every day by the wrong choice of alternatives.

The opportunity cost of fixing that tire myself was 75¢ and the opportunity cost of owning my own combine is the difference between my costs as an owner, and the cost of rental. The breakeven point occurs where the cost of both alternatives is equal.

To find this break-even point in our example, we must have an accurate estimate of the costs on both sides. The cost of renting a combine is exactly the rental fee — no extras such as fuel or repairs. At the current rate of \$1/ft. of swath a 9 ft. combine could be rented for \$9/hr. It is important to remember that this cost remains the same whether I use the machine for 10 hours or 100.

The many costs of ownership appear in the table below. Since some costs do not change with use, such as interest on the finance, while some costs such as fuel vary with the time our combine is used, we must divide costs into fixed and variable types.

FIXED COSTS

Type of Machine - Combine	
Expected Age - 10 years	
Initial Cost -	\$5,500
Interest (5% for 5 yrs. on total)	1,375

Taxes, Housing & Insurance (1% of total)	55
	\$6,930
Salvage Value (20% of total)	1,100
	\$5,830
Total Fixed Cost/Yr.	\$ 530

VARIABLE COSTS

Fuel, Oil, Grease	\$2.00/hr.
Labour	1.25/hr.
Repairs (Based on 3% of total over 100 hours)	1.65/hr.
Total Variable Costs	\$4.90/hr.

From the foregoing figures, we can see that if the combine is only worked 1 hr/yr, the cost of owning the combine would be $(530 + 4.90) \$534.90/\text{hr}$ which is ridiculous. If the combine is worked 30 hours, the hourly cost is $(530 + 4.90) = \$22.55$

30

which is still far too high. Just where does the break-even point come? At that amount of use which cuts the hourly cost down to \$9 — the cost of custom work.

If \$4.90 of the total hourly cost is the same regardless of the amount of time the machine is used, and the total cost per hour is to be \$9, then $\$4.10 (9 - 4.90)$ can be used to pay part of the fixed annual cost. At the rate of \$4.10/hr, the machine must work 130 hours to pay the fixed costs. This is the point at which ownership begins to pay.

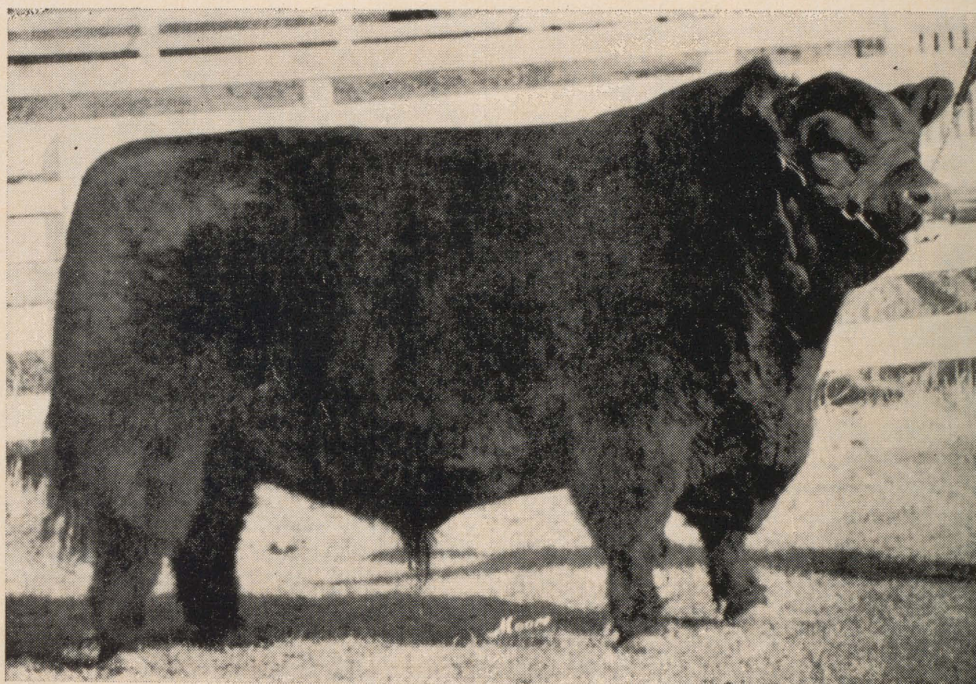
If this machine can be worked for 200 hours then the cost per hour is $(530 + 4.90) = \$7.55$ — a big saving 200 over the cost of renting a custom combine.

The balance between profit and loss in machinery ownership is very delicate. Correct decisions depend on accurate cost figures, and a careful comparison of the costs of alternatives. There is, in many cases, a middle road between the extremes of outright ownership and custom cropping. Variations of share-cropping are being used more and more. The machinery syndicate is enabling progressive farmers to use expensive, specialized equipment such as a combine without the responsibilities of sole ownership.

As one farmer recently told me, "The economist has lots of sophisticated rules, but when all is said and done, the secret is to buy low and sell high!" In this time of rising costs and stagnant prices, it is vitally important to buy low — to choose the least-cost route of production.

* James G. Brown is Extension Assistant, Macdonald College.

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